

THE EFFECTS OF SELF-REGULATED LEARNING INTERVENTION ON
STUDENTS' MOTIVATION IN LEARNING HISTORY

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To my loving husband Roy who has been extremely supportive in my whole endeavour of pursuing my dream in this post-graduate study.

I would also dedicate the success of the completion of this thesis in the remembrance of my beloved mother who departed the world about a year ago. She had been always my strongest inspiration in the whole journey of my life. My father, who has been always, supported me in silence.

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ABSTRACT

In academic and educational field, self-regulated learning (SRL) has drawn great interest for educational research in the past few decades because of its characteristics that could influence students learning behavior and their achievement levels. Previous studies have revealed the importance of SRL by linking it to positive motivation, application of appropriate learning strategies and desirable academic outcomes. SRL studies in Malaysia mainly focus on the examination of factors and predictors that affect students SRL. No research was conducted to determine the effectiveness of SRL strategies intervene students motivation and use of learning strategies in learning. As such, the main purpose of this study is to investigate student motivational level and use of learning strategies in learning History before and after intervention program. In order to attain comprehensive picture and rich information for teachers and policy makers to design appropriate learning contexts in schools, SRL strategies used in this study has been integrated into form four History. This is a pre- and post-test quasi-experimental design which consists of 58 form four students from a secondary school. Thirty (30) of them were in experimental group and twenty eight (28) were in control groups. Sequential quantitative and qualitative data collections were engaged. *Motivated Strategies for Learning Questionnaire (MSLQ)* was used as research instrument to collect quantitative data in this study whereas *Self-regulated learning Interview Schedule (SRLIS)* was used as qualitative research instrument. *T*-test was used as statistical method to analyze quantitative data and thematic transcription was used to analyze qualitative data. Statistic findings indicate that mean score of student motivation and use of learning strategies increased significantly after intervention of SRL strategies.

ABSTRAK

Pembelajaran arahan sendiri (*self-regulated learning, SRL*) yang merangkumi komponen motivasi dan strategi pembelajaran telah menarik perhatian dan minat penyelidik pendidikan psikologi sama ada dalam atau luar negara kerana keistimewaan ciri-ciri SRL yang mempengaruhi tingkah laku pembelajaran pelajar dan juga pencapaian mereka. Kajian lepas menunjukkan kepentingan SRL yang dihubungkan dengan motivasi positif, aplikasi strategi pembelajaran yang bersesuaian dan hasil pembelajaran yang diinginkan. Kajian tentang SRL di Malaysia memfokuskan kajian faktor dan ramalan yang mempengaruhi SRL. Demi memperoleh gambaran dan maklumat yang menyeluruh bagi guru-guru dan penggubal dasar dalam mereka konteks pembelajaran yang bermakna untuk pelajar, kajian ini mengintegrasikan strategi SRL dalam pembelajaran Sejarah Tingkatan Empat. Tujuan utama kajian ini adalah untuk menentukan motivasi dan strategi pembelajaran pelajar Tingkatan Empat sebelum dan selepas intervensi pembelajaran Sejarah. Kajian ini menggunakan reka bentuk quasi-eksperimen ujian pra and pos yang melibatkan 58 orang pelajar dari sebuah sekolah menengah. Sebanyak 30 orang pelajar berada dalam kumpulan eksperimen dan 28 orang lagi berada dalam kumpulan kawalan. Kaedah gabungan yang mengkombinasikan kaedah kuantitatif dan kualitatif untuk mengumpul dan menganalisis data telah dilaksanakan. *Motivated Strategies for Learning Questionnaire (MSLQ)* digunakan sebagai alat ukur untuk mengumpul data kuantitatif manakala *Self-regulated learning Interview Schedule (SRLIS)* telah digunakan sebagai protokol temu bual. Ujian-*t* telah dijalankan untuk menganalisis data kuantitatif manakala data kualitatif telah dianalisis berdasarkan tema yang diperoleh. Dapatan kajian menunjukkan bahawa skor min motivasi dan penggunaan strategi pembelajaran pelajar dalam kumpulan eksperimen telah meningkat secara signifikan selepas intervensi.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Human learning is a complex process which can be treated as part of education, personal development, schooling, or training. Learning occurs when individuals are gaining new or adapting pre-existing knowledge, skills, behaviors, values, and even synthesizing many types of different information. Learning occurs across lifespan. In behavioral psychology, learning involves the modification of behavior through experience or conditioning; whereas cognitive viewpoint of learning often inter-related between environment and cognitive process. Generally, learning is regarded as “an active, cognitive, constructive, significant, mediated and self-regulated process” (p.2) (Beltrán, 1996; in Montalvo & González Torres, 2004). For Mayer (2008), meaningful learning in a classroom depends on effective teaching and learning processes. These processes involve the methods and skills used by teachers to deliver the materials, and also the sufficient strategies engaged by students to perceive and grasp the materials upon teachers’ delivery.

There are many factors which include internal and external factors that may influence students’ effective learning. Internal factors relate to students private and personal conditions, such as relationships between students in the classroom have profound impact on learning because trust and acceptance among students can foster learning, whereas fear, worry and boredom inhibit learning. Besides the above factors, a student’s affective and emotional states are internal factors that can also affect the quality of learning in the classroom, such as students’ feeling about themselves, the aspirations and goals that they desires to achieve, as well as their

physical comfort and levels of worry are factors that can impact the quality of learning. External factors are more likely related to the learning process and learning environment. For example, the climate of the classroom, assessment strategies, teachers' teaching methods, time and space, learning material are external factors that can influence the effectiveness of students learning in a classroom. These external factors are beyond the control of students.

Taking into account of the factors affecting students' learning as explained above, we can conclude that teachers play an important role in the teaching and learning process in a classroom to strengthen the relevance and meaningfulness of what is taught and learned. In order to help students develop positive learning, teachers should make students aware of their motivational level and use of effective learning strategies for a particular subject, so that they could have greater control over their learning. Teachers should also guide students to use correct methods to meet the task and assessment requirements. These learning behaviours are desirable and comprise in SRL strategies.

As an effective learning strategy, 'metacognitive' learning approach is introduced to students in this study. This approach helps students learn how and when to take control of and in-charge of their own learning through the process of defining goals and proactively monitor their progress for goal attainment (Bransford, et al., 2006). According to Mayer (2008), metacognitive knowledge refers to the learners' awareness of their own cognitive processes during the learning and self-evaluate whether they are successfully meeting the demands of the task. This definition of metacognitive knowledge is in line with the definition of self-regulated learning (SRL) knowledge which emphasizes that effective self-regulated learners are aware of when and how to use specific type of learning strategies. Both metacognitive and SRL knowledge have been stressed by American educational researchers because of the importance of personal responsibility and self-control of learners in the process of pursuing knowledge and skill. Previous research evidences have shown that self-regulation in the classroom could increase learning, helping

students to set their own learning goals and monitor their own learning. When study about SRL perspective on students' learning and achievement, the implications of the way teachers interacting with students should also be studied.

Pintrich (1995) describes self-regulation learning as “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment.” (p.5). SRL could be an effective learning approach to overcome the personal weaknesses as well as other inter-related factors in the learning process. SRL could also enhance strategies in learning History subject, a subject which is often perceived as boring and difficult. When students master effective learning strategy for this subject, they will become more motivated to learn. Many researchers emphasized that SRL required a learner's *will* and *skill* in order to have significant achievement (Blumenfeld and Marx, 1997; McCombs and Marzano, 1990). In SRL, motivation is an important component in learning because it is treated as students' will to learn. SRL is being assumed as flexible and can be designed and taught to different learner (Paris & Winograd, 2001). The most important is that SRL should be linked to actual curricular content in order to apply them in a natural setting. The effectiveness of SRL instructions will be clear if they are linked to actual learning situation (Hattie, Biggs, & Purdie, 1996).

Through the learning of self-regulation strategy, students are encouraged to plan and achieve their goals, either learning or performance goals, or both. They are taught to plan appropriate learning strategy which could help them to attain their goals. Besides this, SRL strategies involve self-monitoring, and self-control that acquire students to be aware of the efforts they had invested, evaluate their interest towards a learning task, control and judge their motivational level and attitudes toward the subject. Eventually, students are aware of their progress by self-assessing on their works and also self-reflect to their progress.

In line with the role of SRL in learning, this study attempts an intervention approach to enhance the application of self-regulation strategies in actual History lesson. SRL is a learning strategy that can be taught to students. However, students at different ages perceive and adapt SRL at different levels of understanding. The process how students acquire their ability and competence to self-regulate their learning should be considered. Thus, SRL strategies must be planned and designed distinctively according to students' knowledge and understanding of SRL and also their ability to regulate their learning.

1.2 BACKGROUND OF THE STUDY

In Malaysia, educational reform is an ongoing process and becoming a part of The National Key Results Areas (NKRAs) under the Government Transformation Program (GTP) (Annual report of GTP, Prime Minister Office, 2010). As stated in the web page of GTP, improving student outcomes is the main direction of the educational reformation emphasized by government on schools performance.

“The GTP aims to create a holistic growth in the education sector by addressing fundamental issues like pre-school education and basic literacy and numeracy skills. The aim is to lay a strong foundation and continue to improve the educational capabilities of the schools and higher learning institutions to ensure the ascend to high income economy is smooth.” (GTP, NKRAs)

Even though Malaysia has achieved a 92% adult literacy rate, efforts have to continue to develop “world class quality of education system which will realize the full potential of the individual” (GTP, NKRAs). This important step is taken to fulfil the requirement of today's work market. Undoubtedly, good quality of education providing a solid platform for country's political as well as economy stability. Thus, education system of Malaysia needs to equip the young people with a level of competence and skills. As intellectual capital becomes crucial for every nation,

thinking skills are perceived as a critical competence for employment. In the PIPP (National Education Blueprint, 2006-2010), the Minister of Education at that time, Dato' Sri Hishammudin Tun Hussein urged all parties involved in the educational system to work together to reposition and reengineer the current education system. High quality of teaching and learning process builds on students' need, experience, character, interests, aspirations, and high expectation of teachers' subject knowledge. This is a continuous challenge because constructive and effective teaching and learning process in the classroom does not only emphasize on just teaching and curriculum delivery. Students' cognition, metacognition, motivation, behaviour and learning environment should also be taken into consideration in order to help students learn effectively and perform better in the academic. The teaching professionals need to exercise judgment in meeting such needs when teachers deliver subjects curriculum to students, including subjects such as languages, history, sciences and mathematics.

History is a principal subject taught in secondary level in Malaysia. It is a pass-required subject in lower secondary national examination called Lower Secondary Assessment or *Penilaian Menengah Rendah, PMR* and higher secondary national examination known as Malaysian Certificate of Education or *Sijil Pelajaran Malaysia, SPM*. However, according to Deputy Minister of Education, Dr. Wee Kah Siong, and majority of secondary schools students do not seriously learn History subject. Therefore, the passing rate for this subject is obviously low, compare to other subjects in SPM (Sunday Star, 2010). Recent data indicates that student's low achievement in this subject. According to the report of Ministry Of Education, urban areas students achieved 71.9% in the year 2008 and 73.0% in the year 2009 of passing rate; whereas students of sub-urban areas achieved even lower passing rate; that was 68.2% in the year 2008 and 68.8% in the year 2009 (report of MOE, 2010). With the declaration of Deputy Prime Minister Tan Sri Muhyiddin Yassin, who is also the Education Minister, History subject will be made as a pass-required subject in SPM starts year 2013, hopefully the content of History subject would be improved as well as the teaching-learning methods in the classroom.

In a History subject panel meeting in July 2008, in Johor Bahru, History subject was identified as a critical subject to pass in PMR and SPM especially in Johor state (Meeting minutes of History subject panel, 2008). In the meeting, senior History teachers have revealed some learning techniques to achieve excellent result in the coming SPM examination, such as revision for the topics that had been asked since last five years; study according to the importance of themes; prepare and revise short notes more frequently. In fact, these recommended study skills can be treated as last stages of preparation before students sitting for the History exam. Ideally, better learning strategies in the classroom should have been identified and taught since the beginning of the whole learning process of History subject.

Learning History is not only memorizing the events which happened in the past. According to Chapin (2007), history is the past experiences of a society. History is taught, and learned based on historical understanding and thinking skills, including chronological thinking, historical analysis and interpretation, and historical research capabilities. Unfortunately, in conventional classroom, History is taught based on the syllabus which is prescribed in the yearly curriculum and the curriculum must be completed in certain time frame. Thus, the content and knowledge of History transmit to students in a coherent, orderly and logical way, and the control of the class tends to be tight because students are often required to listen to the lecture. As such, inculcation of historical thinking skills among the students might not succeed. Teacher-centered teaching method is used when the main objective of the teaching process is just to complete the prescribed syllabus. In such learning environment, students behave passively and less interaction takes place between students-students and students-teachers. Students become less creative and less initiative in their learning. Tor (2004) has indicated that Form Four students behave passively during History class, and thus they face difficulties and troubles when come to this subject. They do not go through deep learning and logical thinking process and eventually show superficial understanding towards this subject.

Students who are unable to understand the content of learning materials normally feel 'left out'. They feel less motivated especially when they are unable to perform the tasks given by teachers. Such feeling would reduce students' self-efficacy in the learning of History subject and subsequently affect their performance for the subject. Too much input without considering students' affective in learning interfere the effectiveness of learning. Students will not show interest if they cannot master the skills for learning certain subjects. Students lose their roles as proactive learners and begin to develop into the role of being spoon-fed. They are merely following teachers' direction, teachers' help and teachers' evaluation. Students are seldom asked to evaluate, monitor, plan and manage their own learning activities. Subsequently, students create discipline problems or play truant when they are unable to perform in academic.

Difficulties faced by low achievement students in History class should be taken into consideration. Strong will and effective skill are required in learning History and these assumptions are found in SRL which emphasizes students motivation and effective learning strategies to learn a subject. Students' motivation of learning is regarded as learning will, and effective learning strategies that pursued by students to learn a subject are treated as skill. Students need to invest sufficient effort to self-monitor, self-control and self-evaluate their learning process, to decide and choose how and why to use specific learning strategy in order to attain the desire goals. Thus, SRL might be one of the important catalysts to help in improvising the learning experience in the education system of Malaysia. A more proactive learning method would be able to help students to understand thoroughly the content of History taught in the classroom, to enhance their learning motivation and strategies for this subject and eventually perform better in their learning.

Therefore, this research is essentially in cultivating students' motivation towards learning History subject, by teaching students appropriate learning strategies to meet the task requirement and eventually improve students' skills to grasp the content of learning materials. Social cognitive theory reminds History teachers that

learning and performance should encompass factors such as cognitive, social, motor skills, strategies, and behaviors. Besides deliver History content, teachers should encourage students to set learning and performance goals that they desire to attain, to perceive the difficulties and the value of the task, self-belief of their ability to accomplish the task, self-evaluate the learning resources to assist them when they encounter difficulty, self-adjust the learning strategies and finally, self-reflect on the quality of their work before hand-in to the teachers.

Most of the local research only focus on factors that are related to students' SRL in the Malaysia would not provide better understanding whether principles of self-regulation generalize across contexts. Local researcher, Ng (2010) also indicates that although most research findings strongly support the importance of students' self-regulatory processes, however, only few teachers are able to prepare their students to actively learn on their own. Hence, it is not surprising that students are seldom asked to evaluate, monitor, plan, and manage their own learning activities. Research engages SRL in academic learning would also have practical benefits because it provides knowledge in designing curricula contents, classroom activities, and teaching methods that will encourage greater self-regulation.

1.3 STATEMENT OF THE PROBLEM

History teachers should be proficient in the use of instructional strategies and equipped with professional knowledge and skills in delivering History content, whether in lecturing, story-telling, showing audio-visual learning aids, showing written evidences and others materials that can reinforce the standard textbook material that students are asked to read. In general, if students involve actively in the learning process and try to construct their own understanding base on the content taught, then learning will be fun and effective. The knowledge, information and skills are useless to student if he or she fails to convert the definitions of knowledge, information and skills that he or she learned into a meaningful and personal style, or find the value of the learning and their behaviour (Zehm & Kottler, 1993).

Learning History is perceived as “boring, dry and rigid because learning about the dead” needs transformation (Siti Hawa Abdullah, 2012). In Johor state, the results of History in public examination are comparatively low. Table 1.1 showed the SPM History results compared to other subjects were relatively unsatisfactory. Passing rate for History subject gradually increase year to year, but it still remains as the last position as compared to other core subjects. Thus, more creative and proactive learning methods should be implemented to motivate students’ learning of History and help them to understand thoroughly the content of History learning materials. According to Tor (2004), students do not have effective learning strategies to master History learning materials and thus, they encounter difficulties to memorize and elaborate important facts of History. This is a common fact for the process of teaching and learning History subject in Malaysia, especially for students who have low academic achievement (NEA Today, 2003).

Table 1.1 Passing rates and average grade (GPMP) for core subjects of SPM in Johor

Year	History		Malaysia Language (BM)		English (BI)		Mathematics	
	%	GPMP	%	GPMP	%	GPMP	%	GPMP
2005	69.23	6.14	87.00	5.09	74.80	6.45	75.79	5.49
2006	60.72	6.72	87.15	4.88	75.11	6.46	77.61	5.70
2007	62.79	6.69	88.63	4.82	75.75	6.27	78.65	5.47
2008	68.42	6.23	88.45	4.78	74.33	6.38	80.16	5.39
2009	70.43	6.05	89.08	4.39	76.59	6.19	79.98	5.13
2010	73.19	5.91	89.11	4.38	77.36	6.27	82.73	4.90

Source: SPM Data, Unit Penilaian dan Peperiksaan, Jabatan Pelajaran Negeri Johor, 2011

In view of the low passing rate in national examination and the poor attitude of students in learning History, teachers and education personnel are searching for the answer of “How to teach History effectively?” In Anuar Ahmad, Siti Haishah, and Nur Atiqah’s study (2009), teachers’ teaching skill indicates positive and significant relationship to students’ result. As such, this study suggests that it is important that schools and teachers “find an approach that will assist the History

teachers to improve and vary their teaching skills and consequently produce excellent students in History” (p. 54).

In many classrooms, conventional method of teaching History is through teacher-centred activities (Tan, 2006). This involves techniques like memorization of facts, lectures, and basic reference is textbooks (Rice & Wilson, 1999; Wilson, 2001). Tan (2006) further indicates that in Singapore, although assessment for History subject has changed to source-based questions, most teachers interviewed in her research still teach content followed by an examination style assessment.

Thus, teachers’ training has to change as teacher teaching method and the purpose of teaching and learning History affect student motivation to learn this subject. Rösen’s (2006) idea regarding changing of teacher training in teaching History was cited in the study of Marilú and Maria (2012). Rösen’s (2006) suggested that “the methodology of instruction in History, which defines the teaching approaches necessary to achieve the intended goal” (p. 23). In a broaden perspective, in the analysis of Rösen, topics currently debated about the teaching of history in Germany, which he describes as instructional methodology, functions and uses of history in public life, setting goals for history education in schools and overall analysis of the nature, function and importance of historical consciousness.

Most of the research evidences shown that one of the factors brought to insufficient performance in History was teachers teaching method and skill. As such, a more challenging and effective learning approach such as SRL can be applied in the teaching and learning of this subject. SRL is a learning action and process directed at acquisition of information and skills that individual learner should have in order to self-monitor, self-judge, self-control and self-react to the processes and outcomes of learning. The most prominent characteristics of SRL strategies as compare to conventional History teaching method is, SRL strategies emphasize on individual learning awareness. Self-monitoring on own cognitive, motivation

affective, behaviour, and the environment aspects in learning is an essential approach to enhance students' learning and eventually improve their academic achievement. Lacking of ability to self-monitor own learning behavior might result the low level of awareness to control and reflect on their contemporary use of learning strategies. As such, intervention of SRL strategies in this study aims to inculcate students' learning awareness in order to help them to be alert in all aspect of their learning for History, includes cognition, motivation, behaviour and also environment.

The characteristics of SRL are compatible to the main objective of learning History subject in secondary schools. Based on the Curriculum Specifications of History subject for Form Four and Form Five, integration of historical knowledge, intellectual capability and values as the combination of learning skills are emphasized (MOE, 2002). Self-regulatory processes and strategies help students to learn more effectively (Zimmerman, Bonner, & Kovach, 2009). SRL strategies are metacognitive approach that enables students learning a subject effectively according to his or her own ability (Yong & Yeo, 2012a, b). The strategies focus a deeper learning approach, rather than learning a subject in a superficial level, students attempt to learn a subject in a thorough perspective.

An effective teacher should delivery the content knowledge to students as well as involves him or herself to better understand their own motivational level in learning the subject. Base on this assumption and explanation above, intervention of SRL strategies was employed in this study to improve the teaching and learning of form four students in History lesson. The intervention of SRL strategies in this research includes two major components; they are motivation (expectancy, task value, and affective components) and the use of learning strategies (cognitive and metacognitive strategies, and resource management strategies) to help form four students to further upgrade and reform their conventional learning methods for History lesson. Effective learning methods acquire both will and skills. Mastering of SRL strategies in the process of learning means mastering both the will and skills of learning.

Despite the facts, research from other countries had studied the reality about integration and incorporation of SRL strategies and training to the content of subjects in ordinary schools context brought positive outcomes to the academic achievement of students. Thus, the intervention program in this study is meant to train Form Four students in order to enhance their motivational level and commitment to use SRL strategies to learn History.

1.4 OBJECTIVES OF THE STUDY

This study is aimed to achieve following objectives:

1. To identify the level of motivation and the use of learning strategies of form four students in learning History subject before and after the intervention of self-regulated learning strategies
2. To determine the effectiveness of the intervention program of self-regulated learning strategies in improving form four students' motivation and learning strategies in History
3. To investigate the effects of intervention program on students motivational level and use of learning strategies in learning History through interview

1.5 RESEARCH QUESTIONS

This study is specially conducted to answer the following research questions:

1. What is the mean score of form four students' motivation level in learning History subject before and after the intervention program?
 - 1(a) is there any significant difference in the mean score of motivation in experimental group before and after the intervention program?
 - 1(b) is there any significant difference in the mean score of motivation in control group before and after the intervention program?
 - 1(c) is there any significant difference in the mean score of motivation between experimental and control group before the intervention program?

- 1 (d) is there any significant difference in the mean score of motivation between experimental and control group after the intervention program?

2. What is the mean score of the use of learning strategies of form four students in learning History subject before and after the intervention program?
 - 2(a) is there any significant difference in the mean score of the use of learning strategies in experimental group before and after the intervention program?
 - 2(b) is there any significant difference in the mean score of the use of learning strategies in control group before and after the intervention program?
 - 2(c) is there any significant difference in the mean score of the use of learning strategies between experimental and control group before the intervention program?
 - 2 (d) is there any significant difference in the mean score of the use of learning strategies between experimental and control group after the intervention program?

3. What are the effects of intervention program on students' motivational level and use of learning strategies for History?

1.6 RESEARCH HYPOTHESES

There are hypotheses to be tested in this study:

- H₀1: There is no significant difference in the mean score of motivation in experimental group before and after the intervention program
- H₀2: There is no significant difference in the mean score of motivation in control group before and after the intervention program
- H₀3: There is no significant difference in the mean score of motivation between experimental and control group before the intervention program
- H₀4: There is no significant difference in the mean score of motivation between experimental and control group after the intervention program

H₀₅: There is no significant difference in the mean score of the use of learning strategies in experimental group before and after the intervention program

H₀₆: There is no significant difference in the mean score of the use of learning strategies in control group before and after the intervention program

H₀₇: There is no significant difference in the mean score of the use of learning strategies between experimental and control group before the intervention program

H₀₈: There is no significant difference in the mean score of the use of learning strategies between experimental and control group after the intervention program

1.7 IMPORTANCE OF THE STUDY

The importance of SRL became more apparent when a growing number of researches had indicated positive outcomes of SRL towards students learning, motivation, choices and applications of strategies, adaptation of good learning behavior and also academic achievement. For instances, Zimmerman and Martinez-Pons (1986, 1988) found that SRL strongly associated with excellent academic functioning. Students who applied constantly SRL strategies in their learning perform better academic achievement if compared to those who did not (Wolters, 1999; Pintrich & De Groot, 1990; Zimmerman & Martinez-Pons, 1986). As such, one of the main causes of low academic achievement is the failure to self-regulate in the learning processes (Schloemer & Brenan, 2006; Borkowski & Thorpe, 1994; Zimmerman, 1994). Research findings also indicate that self-regulated learners are more engaged in their learning. They possess some special attitudes, such as seat themselves toward the front of the classroom (Labuhn, Zimmerman, & Hasselhorn, 2010), voluntarily offer answers to questions (Elstad & Turmo, 2010), and seek out additional resources when needed to master content (Clarebout, Horz, & Schnotz, 2010). Most important character is self-regulated learners also manipulate their learning environments to meet their needs (Kolovelonis, Goudas, & Dermitzaki, 2011).

Generally, adequate intervention of SRL strategies brings specific and positive effects not only to both students, teachers, but also to educational practice as a whole. Proper implementation of SRL strategies helps students to train their mind and also cultivate positive mindset in the process of learning (Yong & Yeo, 2012a).

a) Teachers practice

One of the implications of this study proposes that History teachers should be trained in SRL dimensions so that they can deliver effective self-regulatory strategies, knowledge and skills to students. For example, according to *Buku Panduan Program Ijazah Sarjana Muda Perguruan Dengan Kepujian, Institue Pendidikan Guru Kampua Temenggong Ibrahim* (2007), SRL strategies is not included in the list of core subjects that trainee teachers should learn as part of their professional training. As such, better understanding to the constructs comprise in SRL, including both motivational level and use of learning strategies, can help History teachers to structure their teaching methods (Paris & Winograd, 2001), to deliver authentic work to students (Paris & Paris, 2001), and also to develop positive relationships between teachers and students (Perry, et al., 2006).

The findings and information of this research is crucial in helping teachers to structure the methods and processes of teaching and learning for History subject. Teachers should introduce useful learning strategies to help students to learn. If students use correct and appropriate strategies to learn effectively the materials and accomplish their task successfully, they are more likely to be motivated and invest more effort in using their strategy. SRL involves motivational decisions about goal of an activity, the perceived difficulty and value of task, the self-perceptions of their own ability to accomplish the task, and the potential benefit of success or liability of failure. All these components happen in a cyclical manner and related to each other. This assumption is supported by Schunk and Zimmerman (1998). They stressed that to raise the level of enthusiasm of both students and teachers in the classroom is to give appropriate SRL training to students and this helps to make the learning process more enjoyable and meaningful for everyone. SRL training includes improving

students' participation in class, such as involving them in class discussion, and to enhance their interest towards their learning subjects.

Furthermore, the information of this research helps History teachers to perform quality and structured homework, tasks or learning activities in order to encourage students to involve more actively in monitoring, controlling and reflecting their learning behavior and also the performance. Teachers must understand that students' interests in and beliefs about the importance and utility of task given in the classroom will either support or decline students' motivation (Perry, et al., 2006). The nature of task determines whether students will continue their learning effort to the subject, or withdraw from the learning. For example, too simple and routine work induces boredom and students start to feel disinterest towards the learning content (Blumenfeld, Mergendoller, & Swarthout, 1987).

According to Calfee (1991) in *Classroom Applications of Research on Self-Regulated Learning* (see Paris & Paris, 2001), instructional tasks or activities that allow little initiative, control, and independence do not allow much SRL. Tasks that helping to promote and enhance students' interest in learning should be full of variety, novelty, diversity, meaningfulness, relevance (Malone & Lepper, 1987) and fit to students' need. The suitable activities are such as reviewing work samples, projects and artifacts, understanding progress through record keeping, documenting interests and habits, identifying choices and preferences, conducting conferences with teachers, evaluating the process of collaborative learning in classroom, and sharing personal responses to school works (Paris & Ayres, 1994; Tierney, Carter, & Desai, 1991). Each activity requires students to make critical thinking and initiative for assessing their work.

Teachers play an important role to develop positive and constructive relationship with students in order to support students learning motivation in classroom and eventually increase their self-regulated learning behavior. Evidences

from previous research have shown that teacher caring is important to students of all ages (Perry et al., 2006). Caring teachers understand students' need in the process of teaching and learning, able to become model to students, talk and listen to students, fair, and ask students whether they need help (Wentzel, 1997). Teachers, who have SRL knowledge care for the students, guide their students to set adequate goals, use appropriate learning strategies to attain the goals, teach students to self-monitor and self-evaluate their progress, and eventually coach students to alter their strategies in learning.

b) Students practice

Previous researches and evidences show that students are able to improve their degree of control over learning and performance, in all subjects, when they are given appropriate and adequate training in SRL strategies. This implies that when students believe they possess effective strategies will help them to learn more and do better in their study. They feel more efficacious and eventually improve their motivation level in learning and apply continuously the learning strategies. However, how does a student acquire knowledge of appropriately selecting and regulating the use of the SRL strategies to enhance his or her performance in History? And, to what extent does the application of these SRL strategies can be sustained?

SRL and self-regulative knowledge is still a new area of study in Malaysia educational research (Ng et al., 2006). Local studies related to SRL are more likely to investigate students' SRL levels in smart schools (Ng, Kamariah Abu Bakar, Samsilah Roslan, Wong, &Puteri Zabariah Megat Abd Rahman, 2005a; 2005b). They found that IT-learning environments in smart schools encourage students to be more self-regulate. Earlier than that, some researchers were agreed that the use of IT supports and enhances self-learning (Nurhizan Abdul Manab & Azman Othman, 1999).

Therefore, researcher believes that if SRL strategies with integrated History learning content are planned and taught adequately in the classroom, students will perform effective learning in their History class. Attainment of learning goals becomes effective and more meaningful when they apply these SRL strategies appropriately. A strategy will become powerful when its implementation is self-monitored and its outcomes are self-evaluated.

Students who are self-regulated learners are always aware of the relationship between regulatory processes they engaged and their learning outcomes; and also the effectiveness of the strategies they used to achieve their academic goals (Zimmerman, 1989). This is because self-regulated learners are trained to self-monitor, self-control, and self-reflect on their learning. They are assumed to learn proactively and responsible to their learning attitudes, behavior, and also the outcomes. Therefore, an enhancing teaching and learning method should be intervened in the classroom in order to increase students' awareness of their cognition, motivation, behavior and learning environment to learn History in and out of the classroom.

c) Educational practice

SRL strategies incorporated to the content of the subject enable students to apply the strategies in a natural setting. In order to deliver effective SRL strategies to students and help students to overcome the problems which arise during the process of practicing SRL strategies, Paris and Winograd (2001) suggest that teacher should go under the SRL training so that they can deliver effectively the strategies to students. According to them again, teachers can extend the same principles of SRL to educational technology, to study skills, to scientific reasoning, and many other academic arenas. These SRL strategies are viewed as special tools that need to be taught, practiced, and applied in school. Base on this, teachers are assumed to know good strategies but students do not; therefore teachers must prescribe and teach students to use these strategies.

Intervention SRL strategies could be new possibilities for educational practice as it provides new insight on the process of teaching and learning in the History classroom. The essential components in the learning process such as cognitive and metacognitive, motivation, resources management, and learning environment are inclusive in the intervention of SRL strategies. A task or a learning process for History will become more meaningful and important to students if they are allowed to learn based on their own progress. Through intervention, students are encouraged to determine their learning and performance goal for History subject according to their abilities. As such, they are able to enhance their motivation and learning strategies for it. Students are able to learn sufficiently and perform better outcomes with the will and skill of learning work in a synergy manner.

Characteristics of SRL strategies allow students to plan their own learning and performance goal based on their own ability. They are taught to self-monitor the discrepancy between the current achievement and the future goals that they want to achieve in order to control their learning effort and time used for learning History. Self-record their test and exam results, feedback from teachers and peers, self-reflect on the task value of History provide deeper knowledge to both teachers and students to self-regulate their learning. This is a meaningful teaching and learning process because it helps students to overcome incongruity occurs in the learning of History. When any discrepancy occurs between present state and the ideal state that an individual perceived, he or she will go through an experience of 'incongruity' (Reeve, 2005). For example, students plan to achieve a better grade in the future exam but they do have knowledge of their present learning behavior is unable to help them to attain the goal. SRL strategies help students to shorten the incongruity by using strategies such as self-monitoring, self-control, self-adjustment, and self-reflect on cognition, motivation, behavior, and their learning environment.

Further, self-regulated learners may apply SRL strategies not only in History class, but also for other subjects. This is because students who are self-regulated learners see themselves as agent of their own behavior, they believe learning is a

proactive process, they are self-motivated and they use strategies that enable them to achieve desired academic results, not only for History. The level of their motivation towards learning will increase as well as their learning strategies and finally, achieve a better grade for the overall results in SPM.

1.8 THEORETICAL FRAMEWORK

There are various theories interrelated to SRL, such as social cognitive, operant, volition, Vygotskian, cognitive constructive, and phenomenological. Among the theories, social cognitive theory had been widely used and it has guided comprehensive research on self-regulation in the field of educational psychology (Ng, 2010). Different SRL models propose distinctive constructs and approaches in academic areas. However, these models share some basic and common assumptions about learning and regulation behaviors. Pintrich (1995) had synthesized various assumptions and given a general working definition of SRL as “an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior guided and constrained by their goals and the contextual features in the environment.” (p.5)

Pintrich’s SRL model is grounded based on Bandura’s (1986) social cognitive theory. Social cognitive theory emphasizes that most human actions are goal directed and views human functioning as interactions between behavioral, environmental, and personal factors. Therefore, SRL processes such as self-observation or behavioural monitoring, self-judgment or self-evaluation of progress, and self-reaction, including both affective and tangible self-initiative consequences, are influenced by personal and environmental factors. Furthermore, Bandura (1986, 1988) had integrated motivational processes with self-regulation. He explained that individuals would engage in actions which they believe will bring expected consequences, such as increased understanding and receive rewards, status, and affiliation. In other words, individuals would avoid undesirable consequences such as pain, loss of status, or loss of affiliation.

In academic, Zimmerman (2000) proposed a model of developmental levels of regulatory skill based on perspective of social cognitive theory. This conceptual analysis emphasizes persistence and extensive social guidance at the beginning level of learning. Students learn new knowledge and skills by watching and observing the performance from models in their surroundings. Students attempt to perform the learned knowledge and skills at emulation level of self-regulatory, but not imitate exactly the actions and behaviour of models (Rosenthal, Zimmerman, & Durning, 1970). Students are in self-controlled level of self-regulatory skills when they master the use of knowledge and skills without the presence of the models. Final level, that is self-regulated level, is achieved when students can systematically adapt their behaviour and perform them in inconsistent environments. Students' performance can be improved as immediate feedback and social support is given to them. Zimmerman (2000) described that "level 4 functioning (self-regulatory skill) continue to depends on social resources on a self-elective basis... because self-regulatory skill is context dependent, new performance problems can uncover limitations in existing strategies and require additional social learning experiences." (p.31)

Figure 1.1 illustrates the theoretical framework of this study. Pintrich's model of SRL is taken as the foundation of this study. This model encompasses four phases of strategies implementation in the learning process. These four phases of strategies are planning, monitoring, control, and reflection (Figure 1.2). Each phase involves four general domains that students must try to self-regulate; they are cognition, motivation, behavior, and the environment domain. As mentioned in sub-chapter 1.0, SRL strategies are considered as a metacognitive learning approach because of its importance to instill awareness to students. As such, metacognitive self-regulation is mentioned throughout the intervention program and its objective is to provide metacognitive knowledge and awareness of when and how to use specific type of learning strategies to students.

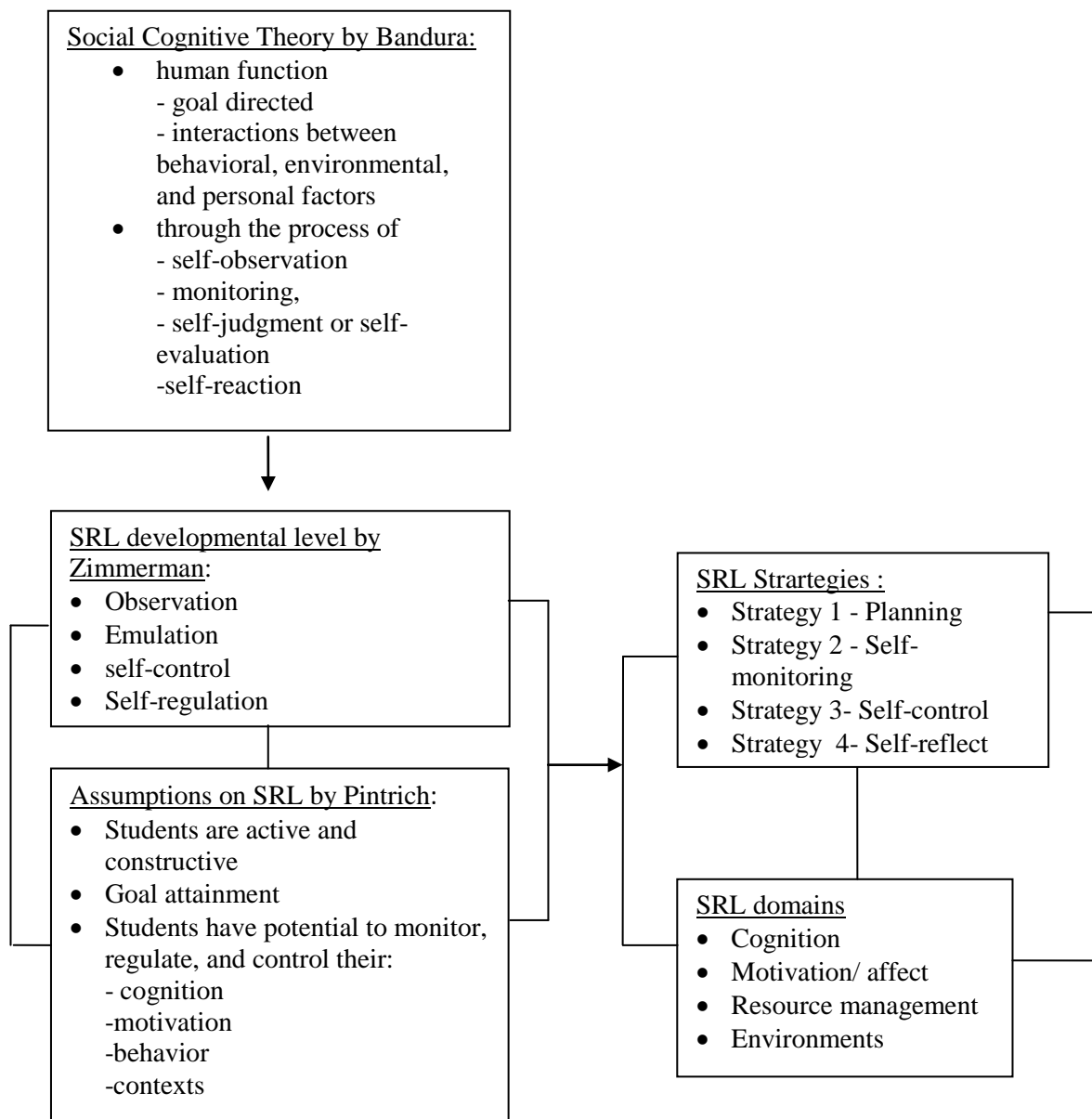


Figure 1.1 Theoretical Framework

Some of the variables have been taken out of Pintrich's model and some variables were being modified as to fulfill the needs of form four students in History lesson. Thus, SRL strategies and related activities in the intervention program are designed based on the four phases of strategies and their usage on the self-regulation domains. They consist 1) cognition, 2) motivation/ affect, 3) behavior (resource management), and 4) the context (learning environment) domain. For example, students were taught to plan, self-monitor, control and reflect on their choices of

cognitive learning strategies to grasp the content of learning materials. Collaboration theory and model of SRL will be discussed in detail in sub-chapter 2.5.

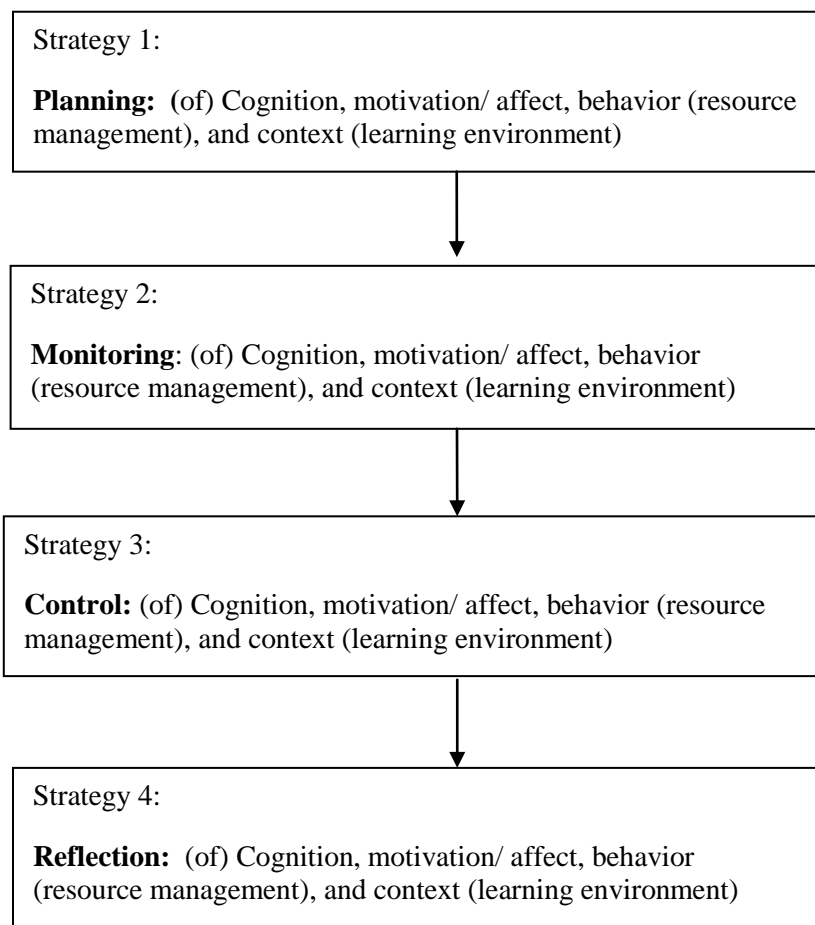


Figure 1.2 Phases of strategies implementation in the learning process and areas of self-regulated learning

Much of the work in cognitive domain focus on the learning strategies that help students to remember, understand, reason, and problem solve. Motivation and affective domain includes various strategies to control and regulate their own motivation and emotions. Self-regulated learners will attempt to evaluate the discrepancy between the goal and their current achievement and control their motivation and emotions in order to facilitate attainment of their goals. Behavioural domain refers to students' use of strategies for resource management, such as time and place of study, effort, peer learning, and help-seeking. This domain includes actual attempts to control overt behaviour, for examples, students make decision whether to increase or to decrease their effort on a task, to be persistent on a task or

giving up. Good self-regulators should know when and how to seek for help if they encounter difficulties in learning and thus help-seeking is another important self-regulatory behaviour in learning process. Besides, they attempt to adjust their effort levels to meet the requirement of the task and their goals; when to stop doing the task and how to monitor and control some aspects of the learning context. For environmental regulation, students can plan, monitor, control and reflect on the distractions while they concentrate on study; they try to understand the task requirements and the classroom regulation. They will try to adjust their learning attitude and behavior to fit these demands.

This is a comprehensive framework to analyze in details the different cognitive, motivation/ affective, behavioral and contextual (environmental) processes that promote SRL in classroom, and this is the first time that contextual area is being studied as an area of SRL (Montalvo & González Torres, 2004). In the contextual area, this new teaching model emphasizes that students can monitor and control, or modify their context/ environment of learning, either in classroom or at home, and from the aspect of tasks and subject contexts (Brown, 1997; Brown & Campione, 1990; McCombs & Whisler, 2000).

The four phases of strategies represent a general time-ordered sequence and should be treated as suggestions when learners go through their task and learning, there is no strong assumption that the phases are hierarchically constructed as such that earlier phases must take place before the later phases. In History class, teachers and students should apply the strategies according to their own learning needs and also the needs of the task. The effectiveness of particular strategies in helping students to enhance their understanding of learning materials and improve their performance should be considered.

1.9 CONCEPTUAL FRAMEWORK

This is a quasi-experimental research design and intervenes between pre- and post-test. The research design, research instruments and interview protocol, sampling processes, data collection and data analysis methods will be discussed in details in Chapter 3.

The core theory of this study is based on Bandura's Social Cognitive Theory. Interventions program consisted of adequate SRL strategies that integrated with Form Four History subject will be designed based on Pintrich's SRL model. This intervention program is introduced to a group of form four students in a secondary school in Johor Bahru. Shorr (1988) defined intervention as any systematic attempt to revamp the course of development from either its existing or predicted path in future. Adelman and Taylor (1994) summarized intervention as planned actions to produce intended results related to existing condition. Thus, the designed SRL strategies for this study should be served as a specially designed add-on program that attempt to accomplish desired ends and is not meant to replace the regular classroom teaching and instruction.

From the literature review, there is a great deal of diversity in terms of the focus of the scope, content, and timeframe for the intervention program (Hofer, Yu, & Pintrich, 1998). Thus, the SRL strategies in this study have been carefully designed based on the consideration of the three factors mentioned above. Students are taught with purposive and meaningful tasks which are designed and linked to appropriate SRL strategies so that students will have the opportunities to practice the learned strategies. Students learn four important SRL strategies in the intervention; they are planning, self-monitoring, self-control, and self-reflection. These strategies will be inserted in cognitive, motivation, resource management activities and also for learning environment regulation activities. These strategies are interrelated and work in synergy (Figure 1.2). Fifteen sessions of intervention program with integrated content of History has been designed. They were taught through the following methods:

Table 1.2 Teaching methods in intervention program

Strategy	Teaching methods
Planning	<ul style="list-style-type: none"> • use examples to guide students do planning for targeted goal, includes intrinsic and extrinsic goal of learning History; make daily, weekly and monthly learning time table, plan appropriate cognitive learning strategies for task accomplishment, and also set a conducive learning place outside the classroom
Self-monitoring	<ul style="list-style-type: none"> • encourage and guide students to be self-initiated, aware and monitor of various aspects of cognitive learning strategies, metacognition self-regulation, task value, control of learning beliefs, monitor and self-record of their performance for all tests and exam, self-monitor and manage all aspects of resources, and the appropriateness of the study place
Self-control	<ul style="list-style-type: none"> • teach students to sufficiently select cognitive learning strategies by using examples, motivation managing strategies, increase or decrease time and effort to study History, how and where to seek help when learning difficulties appear, change or leave disturbance when study History outside the classroom
Self-reflection	<ul style="list-style-type: none"> • teach students how to make judgments and evaluation of their completed task, exam performance, reflect on the effectiveness of cognitive strategies to grasp the learning content, enhance their resource management skills, evaluation of learning context, and also make positive attributions for their success and failure

Planning, self-monitoring, self-control and self-reflection are essential self-regulation strategies in the intervention. Effective and immediate feedback may help students to cultivate these SRL strategies. Students need effort and skills to inculcate this learning habit, and thus, opportunities were provided for them to practice and apply these regulation strategies throughout the intervention. All four SRL strategies are inserted into cognitive activities, include goal planning and task analysis help to activate related aspects of prior knowledge in order to comprehend new material. In History subject, students should always begin a task by setting specific goals for learning, for example, grade that individual student may achieve eventually.

Motivational planning relates to adjustment of motivational beliefs that held by students throughout the learning process, such as self-efficacy, task values beliefs, personal interest, and test anxiety.

Behavioral or resource management planning involves study time and effort proposal, having knowledge of help seeking and peer learning. In regulation of context or learning environment, students must have knowledge about types of task they are given; for example, time and effort required to complete assignment in essay form are definitely more than they copy notes from textbook. Thus, students need to have knowledge regarding the requirement of task and also grading scheme for a particular task. Students need to take further action, such as self-monitoring, self-control and self-reflection in order to complete the cycle of SRL strategies practice and enhance their learning.

Self-monitoring practice in cognition improves students' awareness of what they do not understand of the learning material, of the reason they fail to recall the content that they have learned. Cognition monitoring activities refers to students' ability to pay attention to what is read, self-testing and self-questioning, error detection, and problem solving in order to understand the new material and integrate it with previous knowledge.

Motivation monitoring activities refers to student's awareness of their efficacy, value, interest, or anxiety evaluation, and also their control of learning beliefs towards learning History. They would have to be aware of these beliefs and affects, and monitor them at some level. Pintrich (2000) shows that research on interventions to improve motivation often focus on helping students become aware of their own motivation and adapting it to the task and contextual demands. An effective self-monitoring technique enable students for record keeping, self-observe, self-reflect, and also self-adjust their learning process and make correct attribution

for their learning. However, monitoring process should be kept simple (Zimmerman, Bonner, & Kovach, 2009).

In order to become aware of their learning behaviour, students were taught to monitor the quantity and quality of time and effort they invest for learning or accomplishing task for History, and attempt to adjust their effort to fit the task in order to attain the desired goals. This is a crucial learning skill because through the process of adjusting the maladaptive behaviour, students tend to create or find effective learning skills that help them to achieve their desired goals. In this study, students learn an effective self-monitoring technique; that is self-recording their grades of History subject for every test and exam in a form in order to observe their own performance. As such, they are able to monitor the changes of their grades and compare the learning skills that they engaged. This enables students to keep track and gauge learning success. Effective self-monitoring of cognition, motivation, behaviour and learning environment instil awareness to student regards their strong points and weaknesses of learning and this brings them to the process of self-control.

Self-control refers to students' self-initiative attempt to adapt or adjust their cognition, motivation, behavior and learning context for their goal attainment. In the intervention, students learn and are given opportunities to control and modify the four areas of SRL after they monitor the discrepancy between the goal they set earlier and the current progress toward the goal. Students start to regulate their learning behavior, for example, they may increase their effort and study time for task accomplishment and test preparation. They may start to think of social assistance to help them to further understanding the learning material.

In the intervention, motivational self-control includes activities that students engage to improve their learning motivation; such as positive self-talk, self-encouragement, extrinsic rewards to increase their interest and value perception for

History. For instance, students need to understand the social value of learning History subject rather than merely attempt to memorize History facts.

Self-monitoring of learning environment are crucial as one of SRL strategies because when students alert of distractions, they may attempt to control or avoid disturbance and distractions, such as music, noises, computer games, social network, occur at their study place. They learn to take effort to arrange more conducive study place to study.

Self reflection process refers to students' evaluation and judgment towards their performance on the task and also their attribution for the achievement. This self-reflection process should occur parallel with self-monitoring and self-control in every single area of SRL. Self-reflection is a regulation effort that continuous adjustment and adaptation of one's cognitive and affective activities. As students have initiative to monitor their learning behavior, they would as well have to evaluate the effectiveness of the learning behavior that they engaged. As Zimmerman (1998b) points out, good self-regulated students are able to self-evaluate their performance and also the quality of their work, compare to students who avoid self-evaluations or not aware of the importance of self-evaluation in terms of the goals set for the task. He also states that, good self-regulated learners are more likely to make adaptive attributions for their performance, which make attributions to low effort or poor strategy use but not lack of general ability in the face of failure. Adaptive attributions allow to students to apply deeper cognitive processing and get better learning achievement (Pintrich & Schrauben, 1992) as well as helping students to develop adaptive motivational beliefs and behaviors such as positive affects, positive efficacy and expectancy judgments, persistence, and effort (Weiner, 1986).

When students are assigned appropriately in either experimental or control group, pre-test is conducted by using *Motivated Strategies for Learning Questionnaire* (MSLQ). MSLQ is a self-reporting tool with 81 items, which consists

of motivational and learning strategies components (Pintrich, Smith, Gracia, & McKeachie, 1991). It is used to measure students' motivational levels and their use of learning strategies in History. After completing the intervention program, post-test with MSLQ is administrated again. Individual interview by using *Self-regulated Learning Interview Schedule (SRLIS)* as interview protocol will be conducted after post-test process to collect information about students' usage of SRL strategies to learn History. Both quantitative and qualitative data collection methods and procedures are discussed in detail in sub-chapter 3.8. In this study, students' motivational level and use of learning strategies are dependent variables whereas self-regulated learning strategies in intervention program are treated as independent variables in this study. Figure 1.3 illustrates the flow of entire research process.

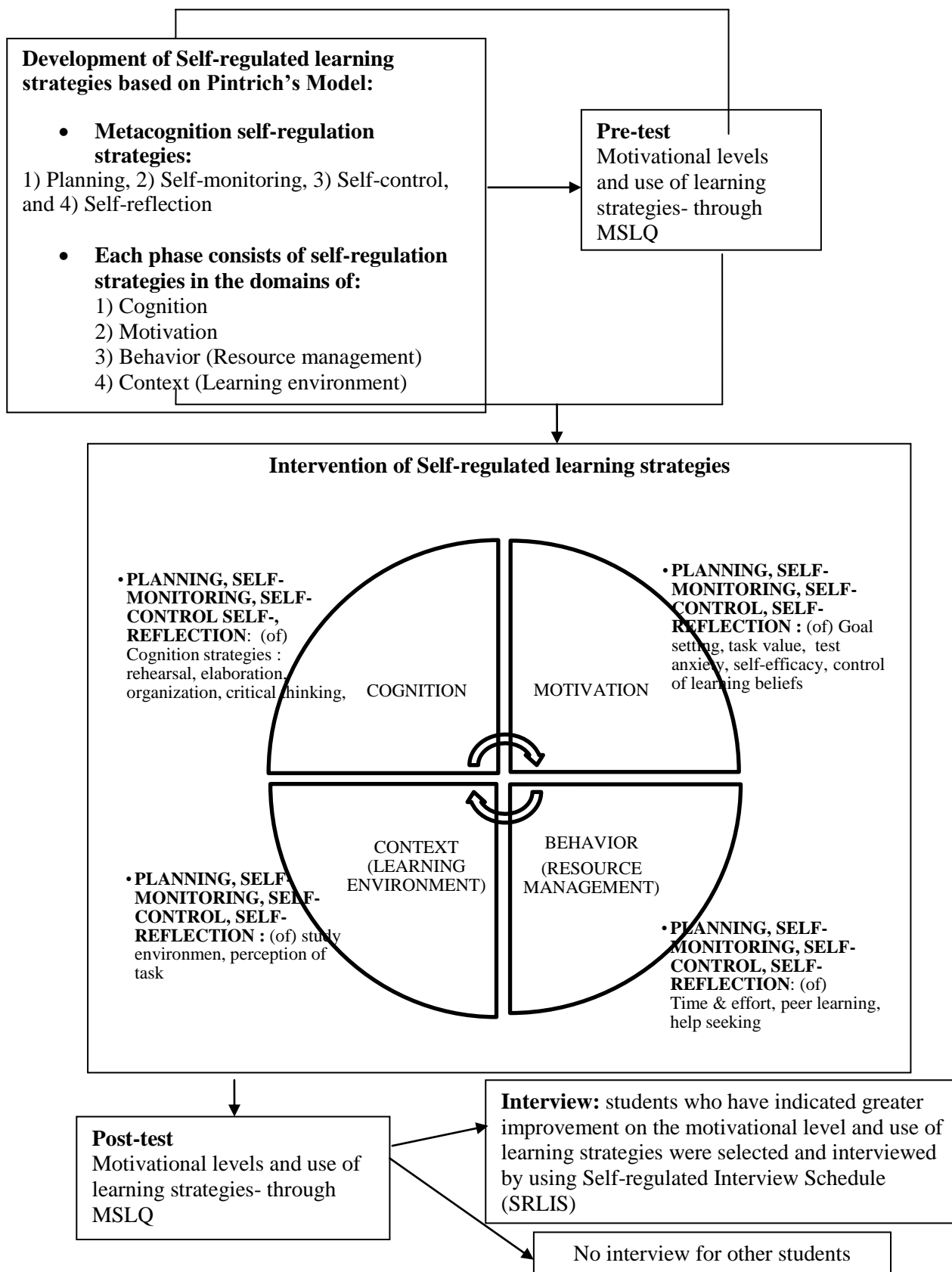


Figure 1.3 Conceptual framework

1.10 OPERATIONAL DEFINITIONS

Self-regulatory strategies had been incorporated in other field of research and different application of self-regulation had been discussed in various researches. However, self-regulation associates with academic achievement are popular research area for most educational psychologists. In learning context, self-regulation refers to the process where students activate and sustain their own learning behaviors, cognitions, and affects toward goals attainment (Schunk et al. 2008).

The definitions of independent variables which take place in this study would be discussed according to metacognitive self-regulation strategies; planning, self-monitoring, self-control, and self-reflect. Further, four types of self-regulation in learning context: a) regulation of cognition, b) regulation of motivation and affective, c) regulation of resource management, and d) regulation of learning environment will also be discussed. After gathering interview data, students' application of SRL strategies will be categorized into several themes that are in line with above variables.

1.10.1 Metacognitive self-regulation strategies

In this study, metacognitive self-regulation activities involve planning, self-monitoring, self-control, and self-reflect to help students to better understand their learning behaviors. Metacognition self-regulation emphasizes to “self- awareness, knowledge, and control of one’s cognition activities” (Pintrich et al., 1991, p.23). Students need to be alert towards their cognition, affection, and behavior when they engage in learning or a task. This metacognitive knowledge is important to helps students to determine their learning behavior. For examples, they need to know whether they are attentive in the learning process, how task variations can influence their cognition, what strategies should they take to attain the goals, how much effort and time should they invest, sort out what they do not understand, and modify their choice of learning strategies if they feel confuse for the leaning material. These questions can only be answered when students activate the mechanism of planning, self-monitoring, self-control, and self-reflect.

Metacognitive strategies associates with higher level of thinking and would be applied when students planning, monitoring, and evaluating the effectiveness of the strategy they use. In short, metacognition is a form of cognition which involves active control over cognitive process. In the process of instructing students to improve the learning, distinctions between cognitive and metacognitive strategies must be made (Miller, 1991).

1.10.2 Regulation of cognition learning strategies

Cognitive learning strategies help a student to acquire, process, memorize and manipulate knowledge, information and skills they learned; for example, taking notes, memorizing key points, asking questions, having discussion in group, and filling out a chart. Cognitive learning strategies are very task specific, particular strategies are useful to perform certain task in learning. As such, students must have knowledge about the three characteristics of cognitive learning strategies: they are goal-directed, intentionally invoked, and effortful (Weinstein & Meyer, 1991). Therefore, cognitive learning strategies can be defined as skills that intentionally manipulated by students to master the learning material. Through processes such as repetition, elaboration, transforming, reorganization, critical thinking, information is able to be stored in students associative network and can be retrieved when necessary. Weinstein et al. (2000), in their article *Self-regulation Interventions With A Focus On Learning Strategies* further defined that learning strategies include “any thoughts, behaviors, beliefs, or emotions that facilitate the acquisition, understanding, or later transfer of new knowledge and skills” (p. 727).

In this study, cognitive learning strategies in intervention program refer to rehearsal, elaboration, organization, and critical thinking which are related to History subject. Basic rehearsal strategies are used for reciting or naming items and keywords from a list to remember. These strategies are effective for simple tasks, such as repetition complex learning materials, copying material, taking notes, underlining or marking texts. According to Pintrich et al. (1991), rehearsal strategies are best used for activation in short-term memory rather than obtaining new learning

information in long-term memory. They do not help students to integrate information with prior knowledge.

Elaboration strategies suitable to learn basic tasks and help students to make information meaningful and easier to remember by building connections between information in the learning material and pre-existing knowledge. These strategies include creating mental imagery and using mnemonic techniques to associate unorganized information to personally meaningful knowledge. Higher level of elaboration strategies, include strategies that manipulate the information by paraphrasing, summarizing, creating analogies, relating the new information to prior knowledge, questioning, and trying to teach the information to their peers, can be used when students learn complex learning tasks;

In learning History, organization strategies are important when learner select appropriate information and also construct internal connections among the pieces of information given in the learning material. These strategies are useful when students are required to read a lot of information. The strategies used for basic learning tasks include sorting or clustering related information based on common characteristics or relationships and classifying it according to sub-topics. Organizational strategies for complex learning tasks include outlining or diagramming the information and creating relationships among information by using networking strategy to categorize it.

Pintrich et al. (1991) define critical thinking as the degree to which students are able to apply previous knowledge to new situations in order to solve problems, work out decision, and make critical evaluations. Whereas Winch (2006) defines critical thinking as the ability to form individual opinions and negotiate one's own way in the world. In learning History, critical thinking occurs when students start to self-questioning. For instance, students self-questioning themselves whether the learning material has supporting evidences and convincing for them, they develop

their own ideas about the learning material, and they may think of other possible alternatives for a conclusion of their learning. Critical thinking is a purposeful and reflective judgment about what to believe or what to do in response to observations, experience, verbal or written expressions, or arguments. Critical thinking may involve determining the meaning and significance of what is observed or expressed, or, concerning a given inference or argument, determining whether there is adequate justification to accept the conclusion as true. Through intervention, students understand when and how to use what strategies in order to better understand learning material and sustain their learning behavior.

1.10.3 Regulation of motivation and affect

Motivation is the process which goal-directed activity is set up and sustained. Motivation is an important element in learning process because it affects all classroom activities, influence students' learning behaviors and their performance of previous learned behaviors. Students can regulate their motivation and affect, as well as they regulate their cognition and metacognition. In this study, activities that included in this area attempts to regulate various motivational beliefs, such as goal orientation (purposes for doing task, either intrinsic or extrinsic goals) and self-efficacy (judgments of competence to perform a task), as well as task value beliefs (beliefs about the importance, utility, and relevance of the task), test anxiety, and personal control of learning beliefs.

In this study, self-consequence is being study as it relates to motivational beliefs of students in learning process. Self-consequence emphasized student arrangement or imagination of rewards and punishment for their failure and success of task accomplishment. Rewards and punishment are treated as explicit learning motives and they will influence different type of learning behaviors (McClelland et al., 1989), includes the direction of goal setting, and also the management of effort and study time.

(A) Goal setting

Goal setting is an important strategy in the intervention of SRL strategies. By setting a learning goal that a student intends to achieve, he or she will be able to plan suitable and relevant strategies to work for in order to attain the goal. In this study, goal setting involves both intrinsic and extrinsic goal orientation.

Intrinsic goal orientation is about the degree to which a student perceives the inner reasons why she/ he involved herself/ himself in learning History. The reasons are such as challenge, curiosity, mastery, knowledge. Having an intrinsic goal towards learning History indicates that students are interested to develop their skills and ability in order to acquire History knowledge. They strive to compete by themselves and to learn something new and challenging tasks (Ames, 1990). Activation of goal setting or objective after task is as important as goals set before task because teacher can help students to determine desired strategies to be used for completing the tasks. Through the process of goal setting, students are more likely to become self-regulated learners (Ng, 2010).

Extrinsic goals orientation complements intrinsic goal orientation, as are goals where students strive to reach standards that often imposed by others. The reasons for students to participate in a task or take up a subject are because of good grades, rewards, performance, judgment by others, and competition. When students are high in extrinsic goal orientation, their main concern to engage in a task is about something that is not related directly to the task itself. They focus more on demonstrating their abilities and capabilities compare to other students. For example, they will memorize facts to what they think will be on a test in order to help them get better grades than other students, but not because they want to learn more knowledge about the content. Ames (1990) points out that these strategies are not genuine learning strategies but only serve the purpose for achieving high scores.

(B) Self-efficacy

In the implementation of SRL strategies, self-efficacy is a crucial element that needs to be considered. This is because previous studies indicated that students with high self-efficacy tend to engage themselves in more difficult tasks, expend greater efforts, persist and sustain longer for the tasks, and are less anxious towards their learning tasks, compare to students with low self-efficacy (Bandura, 1997; 1995; Pajares & Miller, 1994). Self-efficacy refers to specific beliefs about what one believes one can do. Students with poor self-efficacy beliefs possess lower level of motivation in their learning and this may cause them to devalue the task (Bandura, 1997; Pajares, 1996). They face difficulties in their academic self-regulation such as failure to pay attention in class, failure to prepare for examinations, and even failure to attend school (Zimmerman, 2002). According to Schunk and Pajares (2001), self-efficacy is related to SRL.

In this study, self-efficacy for learning and performance refers to students' expectation for success and self-efficacy beliefs in learning History. Expectancy for success refers to performance and achievement expectations, relates specifically to the goal setting. Previous experiences may influence their self-efficacy towards their perception about certain task. For example, students with poor self-efficacy beliefs do not show sufficient confident to plan for higher goal in their future learning because they have done poorly for this subject previously. The best source of information to measure self-efficacy comes from one's actual accomplishments. Self-efficacy is a self-evaluation and self-judgment mechanism towards one's ability to master and accomplish a task. Self-efficacy also refers to one's confidence about their skills to perform the task.

(C) Task value

Task value and interest are another aspect inclusive in motivation and affect area of regulation. Pintrich (2000) explains that in expectancy-value models that stated by Eccles (1983), Wigfield (1994), Wigfield & Eccles (1992), task value beliefs include perceptions of the relevance, utility, and importance of the task. This

information influence students' judgment and evaluation their ability and willingness to apply time and effortful strategies. Thus, directly influence students' self-regulation in learning.

Students perceptions towards a task is important, for example, if students believe that the task is relevant and related to their future goals or generally useful for them, then they are more likely to be engaged in the task as well as choose to engage in the task in future. Moreover, students will consider their personal interest whether they like the subject or not before making decision to engage in a task. Students activate their self-regulatory process, such as self-goals, self-efficacy, values, attributions before they choose to participate in a task (Zimmerman, 1994). Researchers show that interest can be activated by task and contextual features, and learners can also try to control and regulate it (Sansone, Weir, Harpster, & Morgan, 1992; Wolters, 1998). Hence, task value beliefs reflect a direct and significant relation with motivation where higher levels of task value should result in more motivated behavior (Ng, 2010).

In this study, task value refers to students' perception towards a task given by History teacher, such as assignment, notes, and tests. According to Pintrich et al. (1991), "task value refers to students' perceptions of the course material in terms of interest, importance, and utility. High task value leads to more involvement in one's learning" (p.11).

(D) Test anxiety

Pintrich (2000b) explains that students can also anticipate other negative affect such as anxiety or fear for learning a specific subject. In the academic learning context, test anxiety would be the most common form of anxiety. Students who worry about themselves doing poorly on tests even before the test began can cause distraction and disorientation (Gall, 1985), and that lead them to do poorly on the exam (Bandura, 1986; Zeidner, 1998). These negative feeling such as anxiety, fear

or worry can influence the subsequent learning process. From the literature, anxiety is negatively related to SRL (Malpass et al., 1999; Pintrich & Roeser, 1994).

In this study, test anxiety is regarded as a form of negative expectancy in academic performance. There are two components in test anxiety: cognitive and emotionally components. Cognitive component refers to students' negative thoughts that disturb and disrupt their performance, and emotionally component relates to affective and psychological arousal aspect of anxiety. Thus, students must be able to plan appropriate strategies to prepare for a test. In the process of planning and strategy implementation, monitoring on the strategy and outcome could influence students' confidence towards the coming test outcome. Thus, to reduce test anxiety and to increase self-efficacy perceptions of students regarding test outcomes, the development of test preparation skill should be trained and monitored tightly.

(E) Control of learning beliefs

Control of learning beliefs refer to students' beliefs about their efforts to learn will results in positive and encouraging outcomes (Pintrich et al., 1991). Control of learning beliefs also relates to the ways how students attribute their success and failure. Students may have emotional reactions to the outcomes when they have completed a task, such as happy for their success, and sad at the failure. As a result, they will reflect on the reasons for the outcomes. For attribution theory of Weiner (1986, 1995), the types of attributions that students make for their success and failure can lead to the experience of more complicated emotions like pride, anger, shame, and guilt. According to Pintrich (2000a), as students reflect on the reasons for their performance, both the quality of the attributions and the quality of the emotions experienced are important outcomes of the self-regulation process. Therefore, control of learning beliefs can be defined as beliefs or expectancies regarding the extent to which causes lead to successful, or failure of goal attainment (Martin, 2002).

In this study, control of learning beliefs is one of the subcomponent in the expectancy component. It is concerns to the beliefs that outcomes are positively related to one' own effort (internal factor), but are negatively concerns to external factors such as the teachers. It is essential as if students believe that their efforts and hard work make a difference in their learning and resulting good grades, they are more likely to invest more time, more effort, and more effective strategies into their learning. The students feel that they are able to control their academic performances; hence, they are more likely to become self-regulated learners. However, students with external control beliefs perceive that other outside forces are responsible for the learning outcomes. These students are less likely to self-regulate their learning (Elliot & Church, 1997; Weiten & Lloyd, 1994).

1.10.4 Regulation of resource management

Regulation of behavior is an aspect of self-regulation that involves individuals' attempts to control their overt behavior. The essence is that individuals can observe their own behavior, monitor it, and attempt to control and regulate it. In this study, regulation of behavior is linked to the ability of students to manage their learning resources. Resource management activities involve time and effort management, seeking help from others, seeking information (Pintrich, 1999).

(A) Time management

Time management is a type of behavior regulation in SRL that enable students to observe and control their own overt behavior through various methods. In this study, time management refers to effort of scheduling, planning, and managing one's study time effectively. This effort includes not only setting aside blocks of to time to study and revise the work, but the effective way of the use of that study time, and also setting realistic goals. Time management differs in level, from a daily, weekly, and monthly schedule. Students may also plan another intensive study schedule when tests or exam is approaching. As part of time management, students

also may make decisions and form intentions about how they will allocate their effort and the intensity of their work.

Recording the own performance results is an example given by Zimmerman (1998b). He showed that some writers record how many pages of text that they produce in a day and record this information over weeks, months, and years. Pintrich (2000c) pointed that many learning programs also suggest some form of behavioral observation and record keeping in terms of studying so as to provide useful information for future attempts to change learning and study habits. The implementation of these self-observational methods requires some planning and the intention to actually exercise them during learning activities.

(B) Effort management

Effort regulation is another important SRL strategy that students need to learn. For example, if the task is harder than they originally thought, they may increase their effort in order to achieve their goals, or they may decrease effort if the task is perceived as too difficult. Students apply this strategy as they expend for studying subject History based on their monitoring of their behavior and the difficulty of the task. Thus, effort regulation acquires students to control their effort and focus their attention especially to distraction environments and uninteresting tasks.

In self-regulatory process, effort management is self-management and reflects one's commitment to attain the goals, even when they are distractions and difficulties. Students learn to reflect on actual behavior in terms of effort expended and time spent on a task. At the same time, they may decide to make different changes and choices in term of their effort and time management in the future.

In the intervention, student effort to seek further information (non social assistance) regards learning material implies their self-initiated effort management to

secure their learning behavior when dealing with their tasks, assignment, tests, classroom discussion were being studied. Students will be guided to seek in-depth learning information from reference books, textbooks, internet to master their learning. A positive self-regulated learner invest more effort to review the study records, such as notes, previous tests papers, reference book when prepare for the test, group discussion and presentation, assignments.

Students learn to record the results of their learning in the intervention, by using a form. Self-initiated for record keeping imply students effort to well monitor their performance. Increment of learning effort and study time or alteration of cognitive learning strategies can be taken immediately to improve their learning.

(C) Help seeking

Good self-regulators know when, why, and from whom to seek help when they face difficulties in learning (Ryan & Pintrich, 1997). Ryan and Pintrich (1997) stated that help seeking is a behavioral strategy because it involves the person's own behavior, but it also involves contextual control as it involves the support and help from others, such as peers, parents, and teachers. Thus, students learn to identify someone who could provide assistance and help when they are facing difficulties in their learning.

Help-seeking in self-regulatory process does not mean to provide quick answer to students without much effort of learning. Seeking social assistance and resource is an essential skill for student to secure their learning. It also implies student effort management to solicit assistance from peers, teachers, and adults. Some important information about help-seeking are taught to the students in the intervention in order to help students to accomplish the task facilitate their achievement.

(D) Peer learning

Peer learning is being considered as one of the important resource management in self-regulatory processes. According to Christudason (2003), peer learning is a form of cooperative learning that enhances the value of student and promotes active learning. Cooperate and collaborate with one's peers in learning has positive and encouraging effects on one's achievement. It is because this strategy enables students to formulate their own questions, discuss issues, explain their viewpoints, and engage in cooperative learning by working on problems and projects. Deep discussions with peers about subject matters help students to reach insights which they may not attain when study alone.

1.10.5 Regulation of learning environment

In self-regulatory processes, monitoring and controlling of learning environment is an important aspect to facilitate learning. If students are unaware of the opportunities and constraints that are operating in the classroom, then they most probably will not able to function well in the classroom (Pintrich, 2000b). In terms of contextual or learning environment regulation, students can make general evaluations of the task or classroom environment. However, in a conventional classroom context, students are not given that much of freedom to monitor and control totally the learning environments, especially relates to the learning task.

(A) Place of study

In this study, contextual regulation will be intimately linked to efforts to control and regulate the learning environment outside the classroom. For example, monitoring of their study environment for distractions from music, TV, talkative friends, peers, and then attempts to control or regulate their study environment to make it more conducive for studying (removing distractions, having an organized and specific place for studying, so that students can concentrate on their study). Researcher encourages students to monitor whether their study environment is

conducive. They may change their study place if they the previous study place are not suitable for them.

(B) Perception of task

In a classroom context, students' perception towards the nature of tasks in terms of completing the tasks, for instance, the format or procedures to be used to do the task, general knowledge about the type of tasks and classroom practices for grading in the tasks. Task requirement is also important as students will choose appropriate strategies in order to accomplish the task. Being conscious to learning information and study habits in the classroom can help students to adjust their strategy use and behavior accordingly. Thus, students must be aware of the syllabus of History subject in SPM, marking and grading system, durations for answering the questions in examination, text books and revision books that are appropriate for their study.

1.10.6 Teaching methods in intervention program

There are a few teaching methods used in the intervention program to deliver SRL knowledge and strategies to students in experimental group, such as direct instructions, examples, modeling, practice using strategies, feedback from researcher, self-monitoring, self-observation and self-judgment. In this study, intervention is treated as remedial action to improve form four students learning in History. Lacking of motivation and insufficient use of leaning strategies are common problems encountered by most of the students in learning History. As such, teaching methods includes in the intervention program are important and have to be designed specifically in order to produce intended results.

Direct instruction is an effective teaching method to quickly teach information and knowledge to students (Moore, 2009). This method is crucial when delivering SRL knowledge to students, such as the meaning of self-efficacy, control

of learning beliefs, task value, self-control, self-reflection, and self-awareness. Students must grasp the content of SRL knowledge before they can learn and apply the strategies in their learning.

However, direct instructional is not an effective method to deliver contents that needs higher thinking, analysis, evaluation, and judgment. Other teaching methods are acquired when students have mastered the basic concepts of SRL. As such, other teaching methods, either direct or indirectly involvement from students, are engaged in the intervention to teach SRL strategies to students. Examples are shown to students, such as self-construct form for students to record their grades; daily, weekly study schedule; and also the use of cognitive learning strategies based on the learning content of History. Modeling refers to peers who succeed to show good SRL behavior. Students with SRL behavior can be indentified easily and this behavior is reflected by the application of SRL strategies, which refers to will and skill of learning. Researcher also become their social agent by showing students why, how, what and when to regulate their learning in the domains of cognition, motivation, behavior, and environments.

Researcher also plays a role as social resource and gives continuously support and feedback to students. Feedback is crucial in helping students to improve their SRL strategies, includes planning, self-monitoring, self-control, and self-reflection. Positive reinforcement and encouragement providing confidence to students in learning and raise their self-awareness through the process of self-monitoring, self-observation and self-judgment.

In the intervention, students practice the learned SRL strategies for task accomplishment and test preparation. Direct and continuous practice makes the skills profound and provides additional experiences to students throughout the intervention. These experiences will help students to effectively master the SRL strategies.

1.11 SCOPE OF THE STUDY

This study involves form four students in a secondary school in Johor Bahru, Johor. Fifty-eight students from science stream and taught by same History subject teacher in form four will be taken as the participants of this study. Gender and races of students are not being considered as factors which will influence the implementation of self-regulation learning strategies for learning History in the classroom.

This is an experimental design research and the implementation of SRL strategies is treated as treatment for students in experimental group. This study is to determine the effectiveness of SRL strategies in areas of cognition, motivation, resource management, and learning environment in helping students to learn History subject. Pre- and post-test is designed to measure the effectiveness of the application of SRL strategies in the experimental group.

1.12 RESEARCH LIMITATION

The limitations in this study can be divided into a few sections. Firstly, the researcher is trying to get homogeneous subjects so as to reduce the probability of biases in the study. First of all, the subjects are in form four (year 2011), they must be selected from the probability samples that are taught by same History teacher in order to control internal threats, such as selection bias which is represented by the nonequivalence of experimental and control groups. This can occur if they are taught by different History teachers whose experience and background of teaching History are not equivalent. The subject teacher must be informed about the experiment and must give full cooperation in the experiment but he or she is not involved directly in the experiment. The intervention will not be carried out during school hours. Intervention program will be conducted in a meeting room which prepared by school authority. Adequate timing for carrying out the intervention program is after school hours, in order not to disturb the teaching and learning process in the classroom. With all the constraints mentioned above, the researcher

has to discuss with the relevant authority, such as school headmaster and other teachers who are teaching form four History as well.

Secondly, the difficulties of generalization: 1) the variation between the level of students' intelligence towards motivation and learning strategies are likely to limit the potential for generalization; 2) the focus of students from only one school limits the transferability of the findings of the study; 3) the study limits the subject as form four History. The researcher will not be able to determine the effectiveness of self-regulated learning processes and strategies for students from other forms and for learning other subjects. Therefore, the transferability of SRL strategies in other learning contexts will not be able to study.

Thirdly, not all the factors that are related to self-regulated learning and achievement of students are included in the study. The researcher is only studying the relationship between intervention program to enhance students' motivational level and use of learning strategies to learning History, and eventually develop students with self-regulated learning behavior in History lesson.

The fourth limitation of this research will be the choice of the SRL tools. The researcher is using tests and questionnaires (MSLQ) to determine students' motivational level and use of learning strategies to learn History. The items of the questionnaire (MSLQ) and SRLIS only measure if a student claims to apply the SRL strategies. Therefore, it is not possible to conclude any statements on how far the students can actually regulate their learning behavior. SRLIS is the common tools that used to measure students perspective towards their application of SRL strategies to learn a subject. The researcher is intended to collect more relevant data by conducting interview and discussions sessions with students and the subject teacher.

Lastly, the duration of this intervention program last only 15 sessions of meeting (a session per week, for 7 months) are unable to provide a whole picture of the effectiveness of SRL strategies. Hofer, Yu, and Pintrich (1998) point out that a timeframe of an intervention obviously sets constraints on the scope and content of a program. A program of a few weeks or a short-term experimental intervention hardly can possibly teach the wide range of cognitive, metacognitive or motivational strategies that are important for SRL. Thus, the SRL strategies that are taught to students in experimental group have been purposely designed to link with the content of form four History only. Greater effects regarding the learning behavior and the History achievement should be expected in case of a continuous and long-term instruction of self-regulation competencies and training in regular class. Longer duration of SRL training allows students to transfer their SRL skills and knowledge to other learning contextual.

1.13 ASSUMPTIONS OF THE STUDY

A few assumptions need to be put into this study. Firstly, students low achievement in History is due to their insufficient learning behavior, includes their poor motivation to learn the material and complete the tasks, their negative mindset to perceive the task value of this subject, and ineffective use of learning strategies to study this subject. This assumption is in line with many researchers that assume poor self-regulation are key factors contributing to low academic achievement (Gettinger & Seibert, 2002; Pintrich & Schunk, 2002; Weinstein, Husman, Dierking, 2000).

Secondly, students' motivational level to learn History is assumed to be affected by the effectiveness of implementation of SRL strategies. In the intervention, the planned SRL strategies for motivation regulation involve intrinsic and extrinsic goals, self-efficacy, task value, test anxiety, and control of beliefs. The hypothesis and assumption is equivalent to the findings of some social cognitive theorists. For example, social cognitive theory of motivation incorporate constructs that relate to individuals expectations and values, and also affective construct, test anxiety (Perry & Winne, 2004; Wigfield & Eccles, 2002, Schunk, Pintrich & Meece,

2008). The assumption underlies here is students' motivational levels of learning can be enhanced if they succeed to enhance the interactions between their behavior and their surrounding learning environment.

Thirdly, students' achievement in History in solving particular History questions is not taken as consideration in this study. The improvement of their motivational level and use of learning strategies, after intervention, in a continuous manner are the best predictors for their future academic achievement. As such, this study hypothesized that SRL strategies will be able to help students to enhance their learning and eventually improve their achievement for subject History in future. This assumption is supported by the evidence that self-regulative strategies predicted students' academic performance better than merely cognitive strategies (Pintrich & De Groot, 1990). Schunk (2005), in the article *Commentary on self-regulation in school contexts*, also stated that intervention have shown positive results, able to transfer beyond the training context, and can be generalized over time to improve students' self-regulatory skills and school achievement.

Lastly, the designed SRL strategies in the intervention are delivered through direct instructions, examples, modelling, practice using strategies, feedback from researcher, self-monitoring, self-observation and self-judgment, were written clearly in the module of intervention. Clear and explicit instructions of strategies enable students to practice them effectively in and out of the classroom (Ley & Young, 2001; Moon, 2003; Paris & Paris, 2001; Zimmerman, Bonner & Kovach, 1996). Students need to experience success application of SRL strategies in their actual learning that results positive outcomes and this will bring them sense of awareness. Academic performance is an explicit result that can be seen clearly. Students will have more confidence to continue the self-regulatory processes if they prove their ability for the goal attainment. As such, the effectiveness of an intervention to improve students' self-regulation of their academic performance is closely linked to their self-awareness of their behavioral functioning and learning outcomes.

1.14 CONCLUSION

Current situations that occur in the secondary History lesson today served as background to the problems to be studied. The rationale to propose SRL as the treatment to be implemented in the classroom due to the characteristics of SRL strategies that will help students to improve their motivational level and the use of learning strategies for History if control carefully during the experiments. SRL strategies will improve students' learning and thinking skills from planning, self-monitoring, self-controlling and self-reflection towards their study and performance. These skills are believed that will benefit students and teachers in the classroom if SRL approach is being practiced across the task, the subject in school-related work. Students will be able to establish themselves as life-long learners if they master the skills of SRL.

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